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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,284	10/14/2003	Thomas E. Chefalas	YOR920010713US1	7091

27518 7590 09/19/2007
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EXAMINER	
THOMAS, JASON M	
ART UNIT	**PAPER NUMBER**
2609	
MAIL DATE	**DELIVERY MODE**
09/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/686,284	**Applicant(s)** CHEFALAS ET AL.	
	Examiner Jason Thomas	**Art Unit** 2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2003*.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-23* is/are rejected.
7)☒ Claim(s) *4 and 5* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☐ All b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08/22/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

- The abstract of the disclosure is objected to because it exceeds the 150 words limitation. Correction is required. See MPEP § 608.01(b).

Claim Objections

1. Claim 4 is objected to because of the following informalities: It does not specify a further limitation to claim 3 but instead conflicts with the claim. In claim 3 the first cohesive signal set comprises one of an audio and a video portion of a commercial advertisement however in claim 4 the first cohesive signal comprises only a video component of a commercial advertisement. Appropriate correction is required.

2. Claim 5 is objected to because of the following informalities: The statement, “The device of claim 1 wherein the receiver is further…” appears to be missing a

descriptive word between the words “further” and “for.” Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3, 5, 7 – 11, 13, 16, 17 and 19 – 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Lowthert et al. (Pre Grant Pub. 2002/0100043).

Regarding claim 1, Lowthert discloses a device for time shifting a first cohesive signal set relative to a second cohesive signal set (see [0011], [0012], [0029], [0032] for time shifting by way of interrupting the play of a second cohesive signal set, referred to herein as a *program data stream*, with a first cohesive signal set, referred to herein as an *info segment*).

Lowthert further discloses a receiver for receiving a first cohesive signal set comprising a cache marker at a first time (see [0009], [0030], [0031] for using a cache marker, referred to herein as an *info segment header*, in an info segment) and a second cohesive signal set comprising a recall marker at a second time (see [0032] for using a recall marker, referred to herein as an *interrupt point identification “Int Point”* in a program data stream).

Lowthert further discloses a computer readable storage medium (see [0025] for the disclosure of a storage element).

Lowthert further discloses a central processing unit coupled (CPU) to the receiver and to the storage medium (see [0007], [0025] for the disclosure of a CPU, referred to herein as a *controlling unit*) said CPU for storing the first cohesive signal set in the storage medium based on the presence of the cache marker, for accessing the first cohesive signal set based on the presence of the recall marker, and for providing an output of the first cohesive signal set in a timed relation to the second cohesive signal set that differs from a timed relation in which said signal sets were received, said timed relation determined by the recall marker (see [0030], [0032], [0038], [0039] for storing an info segment in a storage element using an info segment header and retrieving that info segment so that it can be inserted using a interruption point into a program data stream, thus time-shifting the point at which each signal was originally broadcast).

Regarding claim 2, Lowthert discloses the device of claim 1 including an output comprising one of the first and second cohesive signal set consecutive with the other of the first and second set (see [0008], [0029] for a description of the order and positioning of both the info segment and program data stream).

Regarding claim 3, Lowthert discloses the device of claim 1 including where the first cohesive signal set comprises one of an audio and a video portion of a commercial advertisement (see [0049] where an info segment comprises an audio and video portion of a commercial advertisement is disclosed based on a list of the multiple forms of data of which the info segment or program data stream can comprise).

Regarding claim 5, Lowthert discloses the device of claim 1 including wherein the receiver receives a third cohesive signal set comprising the recall marker at a third time, and wherein said output comprises one instance of the second and third cohesive signal sets and at least two instances of the first cohesive signal set (see [0018], [0039], [0047] where receiver interrupts play of a program data stream which contains the content, plays an info segment, and then resumes the content and plays to the end. Upon the completion of this method a third program data stream containing interruption points are capable of receiving additional instances of info segments from the storage provided in the receiver or by other means).

Regarding claim 7, Lowthert discloses the device of claim 1 wherein said CPU outputs the second cohesive signal set as it is received by the receiver (see [0025], [0036] where the controller outputs the program data stream, as it is received by the receiver without any time-shift or interruption).

Regarding claim 8, Lowthert discloses the device of claim 1 including where based on a user input, said CPU stores said second cohesive signal set in a computer readable memory and provides said output at a time subsequent to each of said first time and said second time (see [0025], [0045] where the user programs the receiver, which is governed by the controller, to tune into a particular program where its contents have previously been received and cached on the local content storage.)

Regarding claim 9, Lowthert discloses the device of claim 8 including where first and second cohesive signal sets are stored on a common computer readable storage medium (see [0007], [0045], [0050] where a particular program's combined contents and corresponding info segments have previously been received and cached on a single local storage entity which behaves as a server due to its response to the requests of the client controller.)

Regarding claim 10, Lowthert discloses the device of claim 1 including where said recall maker uniquely identifies the cache marker over other signal sets in said storage medium (see [0042], [0043] for a description of Int Points which uniquely identifies requested info segments over other in info segments in the storage medium by means of unique identifiers such as permitted ad types etc.).

Regarding claim 11, Lowthert discloses the device of claim 1 including where each of said cache marker and said recall marker each further comprise a sponsor identifier, said recall marker does not uniquely identify said cache marker apart from the sponsor identifier, and said CPU accesses the first cohesive signal set based on the presence of the sponsor identifier in the recall marker (see [0025], [0032], [0035] where based upon a "permitted ad type identifier" a sponsor or advertiser, such as the respective examples Disney or Marlboro, make use of the segment header and the interruption point identifier as governed by the controller to access the first available info segment as indicated in the program data stream which contains the interruption point identifier).

Regarding claim 13, Lowthert discloses a method for time-shifting at least one of a plurality of received signal sets (see [0008], [0029], [0032] for time shifting by way of interrupting the play of a program data stream an info segment).

Lowthert further discloses receiving a first cohesive signal set comprising a cache marker at a first time (see [0009], [0030], [0031] for using an info segment header which is located in the info segment).

Lowthert further discloses automatically storing said first cohesive signal set in a computer readable storage medium based on the presence of the cache marker (see [0009], [0025], [0030], [0039] where an info segment is automatically stored by the controller in the local storage provided in the receiver based upon the presence of an info segment header).

Lowthert further discloses receiving a second cohesive signal set comprising a recall marker at a second time (see [0032] for using interrupt point identification in a program data stream).

Lowthert further discloses using the recall marker, in response to a user request for the second cohesive signal set, to identify the cache marker of the first signal set in a timed relation relative to one another that differs from a timed relation in which they were received, wherein the output timed relation is determined by the recall marker (see [0029], [0030], [0032] where the use of a interruption point identifier within a program data stream is used to identify an info segment header within a data segment which is then time-shifted upon a user's request see [0034] also see [0045] where it is demonstrated that a user can control the receiver via a remote control).

Regarding claim 16, Lowthert discloses all of the methods of claim 13 including where outputting said portion comprises outputting said portion as received without storing said portion (see [0039] where the outputting said portion is fetched by the receiver via a URL or the like without storing it or see [0043] where the outputting said portion is fetched on the fly).

Regarding claim 17, Lowthert discloses all of the methods of claim 13 including where each of said cache marker and recall marker further comprises a sponsor identifier, and using the recall marker to identify the first signal set comprising the cache marker includes matching said sponsor identifier (see [0025], [0032], [0035] where based upon a permitted ad type identifier a sponsor or advertiser, such as the respective examples Disney or Marlboro, make use of the info segment header and the interruption point identifier as instructed by the controller to access the info segment as indicated by the program data stream which contains the interruption point identifier).

Regarding claim 19, Lowthert discloses a device comprising a receiver for receiving a plurality of signal sets, a central processing unit CPU, and a computer readable storage means for storing at least a first signal set bearing a cache marker, and in response to a user request for a second signal set, means for outputting the first and second signal set in a timed relation that is unrelated to a timed relation in which they were received at the receiver and that is determined by the second signal set (see [0025], [0030], [0032], [0039] where a device comprising a receiver, a controlling unit, and a computer readable storage means is used for storing a info segment which contains an info segment header and is capable of outputting a time-shifted signal as determined by an interruption point identifier contained in the program data stream).

Regarding claim 20, Lowthert discloses a computer program embodied on a computer readable medium comprising computer readable instructions (see [0048] where one of several means for controlling such a device is disclosed as a series of instructions executable by a computer device).

Lowthert further discloses recognizing a cache marker within a first signal set received at a first time, and storing the first signal set (see [0039], [0048] where the info segment is captured and stored from the original broadcast by instruction methods).

Lowthert further discloses recognizing a recall marker within a second signal set received at a second time, and accessing the first signal set based on the least a partial correlation between the recall marker and cache marker (see [0030-0032], [0048] where a correlation between the info segment header and the interruption point is established and recognized by a series of executable instructions).

Lowthert further discloses outputting the first signal set in a timed relation relative to the second signal set that is independent of a timed relation in which the signal sets were received (see [0032], [0048] where play of the content item contained in the program data stream, as controlled by executable instruction methods, is suspended as determined by the interrupt point identifier until the info segment is inserted and played).

Regarding claim 21, Lowthert discloses a method of sequencing at least two disparate signal sets (see [0008], [0032]).

Lowthert further discloses transmitting a first signal set at a first time, said first signal set including an electronic cache marker and an electronic instruction to the local storage cache to retain said first signal set in a local cache (see [0025], [0030], [0048] where an info segment which includes an info segment header has a series of executable instructions which enable it to be stored on the local device).

Lowthert further discloses transmitting a second signal set at a second time, said second signal set including an electronic recall marker that uniquely identifies the cache marker of the first signal set and that directs a receiver to sequence said first signal set with said second signal set when said second signal set is output from the receiver (see [0029], [0030], [0032] where the program data stream includes a info data segment header which can be sequenced in any order when output from the receiver).

Regarding claims 22 and 23, Lowthert discloses all of the limitations of 21 including transmitting over a wireless and/or cable link (see [0024], [0048] for transmitting over a wireless and/or cable link).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lowthert as applied to claim 1, and further in view of Turock et al. (Pre Grant Pub. 2001/0037499).

Regarding claim 4, while Lowthert discloses all of the limitations in claim 1, Lowthert does not teach the synchronization of a first cohesive signal set comprising a video component of a commercial advertisement with a second cohesive signal set comprising an audio component of said commercial advertisement and at least a portion of a television show, and wherein said relation results from synchronizing said video component with said audio component.

Turock discloses a device for synchronizing an auxiliary signal comprising an audio signal with a video signal (see [0007], [0010])

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the device, as taught by Lowthert, to include an A/V synchronization device, as taught by Turock, for the purpose of combining the audio from one signal with the video from another signal, which is commonly accomplished at the headend, when creating a local device which takes on various roles of the headend equipment (see [0001]).

3. Claims 6,12, 14, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lowthert as applied to claim 1 above, and further in view of Picco et al. (US Pat. 6,029,045).

Regarding claim 6, while Lowthert discloses all of the limitations in claim 1, Lowthert does not teach receiving the cohesive signal sets over a first and second channel.

Picco teaches receiving segments of content that are downloaded over a completely separate channel (see Column 3 Line 24).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the device, as taught by Lowthert, to include two tuners and the means to operate such, as taught by Picco, because a second tuner would allow, as was commonly practiced at the time of the invention, the viewing of picture-in-picture or the recording of a second channel while viewing a first channel (see Fig. 8 also see Column 9 Lines 31-37).

Regarding claim 12, while Lowthert discloses all of the limitations in claim 1, Lowthert does not teach the use of a priority code with said cache marker that directs said CPU to store said first signal set and delete another signal set bearing a similar cache marker comprising a lower priority code.

Picco however, teaches the use of a content profile which includes unique attributes such as: an expiration date; or a maximum number of times a piece of local content may be viewed (see Column 6 Line 61 through Column 7 Line 2). These attributes can then be used to determine when the local content may be overwritten or removed (see Column 10 Line 62 through Column 11 Line 1).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the device, as taught by Lowthert, to include such utilization directives, as taught by Picco, for the purpose of optimizing the limited local storage space. Although Picco does not specifically state the use of a "priority code," the disclosed utilization directives based on attributes such as expiration date, use statistics, limitations on the number of viewings, are treated as said priority code thus allowing the device to determine the priority of items to be marked for deletion.

Regarding claim 14, while Lowthert discloses all of the limitations in claim 13, Lowthert does not teach a received timed relation that is at least two orders of magnitude greater than said output timed relation.

Picco however, teaches a trickle technique where the amount of time required for receiving content may take up to a night, several days or even several weeks (see Column 9 Lines 1-39).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use other methods to retrieve content such a technique involving using unused bandwidth to retrieve programming while the receiver is not being used to view television which as a result causes lengthy downloads requiring download times that exceed double the output time (see Column 9 Lines 48-51).

Regarding claim 15, while Lowthert discloses all of the limitations in claim 13, Lowthert does not teach receiving said first and second signal sets over different channels.

Picco however, teaches receiving segments of content that are downloaded over different channels (see Column 3 Line 24).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the device, as taught by Lowthert, to include two tuners, as taught by Picco, which would enable a user to receive signal sets over different channels because a second tuner would allow, as was commonly practiced at the time of the invention, the viewing of picture-in-picture or the recording of a second channel while viewing a first channel (see Fig. 8 also see Column 9 Lines 31-37).

Regarding claim 18, while Lowthert discloses all of the limitation in claim 13, Lowthert does not teach the use of a priority code with said cache marker that directs said CPU to store said first signal set and delete another signal set bearing a similar cache marker comprising a lower priority code.

Picco however, teaches the use of a content profile which includes unique attributes including such attributes as: an expiration date; or a maximum number of times a piece of local content may be viewed (see Column 6 Line 61 through Column 7 Line 2). These attributes can then be used to determine when the local content may be overwritten or removed (see Column 10 Line 62 through Column 11 Line 1).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the device, as taught by Lowthert, to include such utilization directives, as taught by Picco, for the purpose of optimizing the limited local storage space. Although Picco does not specifically state the use of a "priority code," the disclosed utilization directives based on attributes such as expiration date, use statistics, limitations on the number of viewings, are treated as said priority code thus allowing the device to determine the priority of items to be marked for deletion.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Thomas whose telephone number is (571) 270-5080. The examiner can normally be reached on Mon. - Thurs., 8:00a.m. - 5:00p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Chow can be reached on (571) 272-7767. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JT

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